

**Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (currently amended) A method for crystallization or dopant activation heat treatment of a semiconductor film ~~films~~ upon a thermally susceptible non-conducting ~~substrates comprises,~~ substrate, comprising:

AB (a) installing an induction coil in close proximity of a semiconductor film ~~films~~ on a non-conducting substrate ~~substrates~~ lying onto a susceptor, ~~wherein the winding configuration of said induction coil is set in such a way being~~ disposed so that the electrical current direction ~~of inductor~~ is aligned parallel to the in-plane direction of said semiconductor ~~films,~~ film ; and

(b) ~~inducing~~ introducing an alternating electrical current in ~~to~~ said induction coil to ~~introduce~~ generate an alternating magnetic field ~~to~~ through said semiconductor film ~~films~~ heated by said susceptor to the extent that ~~the~~ said semiconductor film ~~films~~ can be induction-heated.

2. (currently amended) The method of claim 1 wherein said semiconductor film is an ~~films are silicon films being~~ amorphous silicon film ~~films~~ or a crystalline silicon film ~~films~~, and wherein said thermally susceptible non-conducting substrate is a ~~substrates are glass and or a plastic substrate~~ substrates.

3. (currently amended) The method of claim 2 wherein said silicon ~~films are~~ film is an amorphous film ~~films~~ deposited onto ~~the glass~~ said substrate for the purpose of crystallization, or

a polycrystalline film ~~films~~ ion-implanted with a ~~dopant~~ (n-type or a p-type) dopant for the purpose of electrical activation.

4. (currently amended) The ~~apparatus~~ method of claim 1 wherein the ~~alternating~~ frequency of said alternating current ~~of in~~ said induction coil ~~is ranged from~~ varies between 10 Hz ~~to~~ and 10 MHz.

93 5. (currently amended) The method of claim ~~2~~ 3 wherein said ~~crystallization of amorphous silicons is~~ film is deposited onto said substrate through solid phase crystallization, metal-induced crystallization, and/or metal-induced lateral crystallization.

6. (currently amended) An apparatus for heat treatment of a semiconductor film ~~films~~ upon a thermally susceptible non-conducting ~~substrates comprises,~~ substrate, comprising:

(a) an induction ~~coils~~ coil installed in close proximity ~~of~~ to a semiconductor film ~~films~~ on a non-conducting substrate ~~substrates, wherein the winding configuration of said induction coil is set in such a way that the current so that the~~ electrical current direction ~~of inductor~~ is aligned parallel to the in-plane direction of said semiconductor ~~films,~~ film; and

(b) a susceptor installed below said non-conducting ~~substrates, wherein the susceptor heats the~~ substrate to heat said semiconductor film ~~films~~ to the extent that ~~the~~ said semiconductor film ~~films~~ can be induction-heated.

7. (currently amended) The apparatus of Claim 6 wherein said semiconductor ~~films are~~ film is a silicon film ~~films~~ deposited on ~~the glass~~ said substrate, in the form of either amorphous

state crystallizing into polycrystalline in the case of crystallization heat treatment, or polycrystalline state implanted by ~~dopants~~ ( an n type or a p type dopant ) in the case of dopant activation heat treatment.

AB 8. (currently amended) The apparatus of ~~Claim~~ claim 6 wherein said susceptor is made of metal or graphite with a high conductivity providing the *in-situ* heating capability to the susceptor under the alternating magnetic field through a heating mechanism of eddy currents (i.e., induction heating).

9. (currently amended) The apparatus of ~~Claim~~ claim 6 wherein said susceptor is made of an electrically ~~non-conductor~~ nonconductive material for preventing the susceptor from being heated ~~under the~~ by an alternating magnetic field generated by said coil, and ~~the~~ wherein said susceptor is designed to be independently heated using an external heat source such as a resistance heater or a lamp heater.

10-16. (withdrawn)